



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/752,388	01/06/2004	Youn-Sun Kim	678-1330	3564

66547 7590 04/03/2007
THE FARRELL LAW FIRM, P.C.
333 EARLE OVINGTON BOULEVARD
SUITE 701
UNIONDALE, NY 11553

EXAMINER

TRAN, CONGVAN

ART UNIT	PAPER NUMBER
----------	--------------

2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/752,388	Applicant(s) KIM ET AL.	
	Examiner CongVan Tran	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-8,14-16,19-21,25,26,28,31-33,40-45 and 47 is/are rejected.
- 7) ☒ Claim(s) 2-4,9-13,17,18,22-24,27,29,30,34-39 and 46 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 5-8, 14-16, 19-21, 25-26, 28, 31-33, 40-45, and 47 are rejected under 35 U.S.C. 102(e) as being anticipated by Tiedemann, Jr. et al. (2003/0161285).

Regarding claims 1, 5, 6-8, 14-16, and 19 Tiedemann, Jr. discloses a method and apparatus for channel quality feedback in a wireless communication, the method comprising the steps of: measuring carrier-to-interference ratio (C/I) values of the plurality of subcarriers using a signal received from the base station (see 2003/0161285, fig.3A-B, 202, 204, step 302 and its description); determining a subcarrier from the plurality subcarriers for transmitting feedback information in a given coherence bandwidth (see 2003/0161285, fig.3A-B, 204, 206 steps 304-308 and its description); generating the feedback information of the subcarrier station (see 2003/0161285, fig.3A-B, 206, 310 and its description); and transmitting the generated feedback information to the base station for estimating the channel condition of the forward link (see 2003/0161285, fig.3A-B, 208 step 312 and its description).

Regarding claims 20-21, 25-26, 40-45 and 47, Tiedemann, Jr. discloses a method and apparatus for channel quality feedback in a wireless communication, the method comprising the steps of: receiving feedback information from the mobile station over a feedback channel; analyzing carrier-to-interference ratio (C/I) values of subcarriers in a given coherence bandwidth using the received feedback information (see 2003/0161285, fig.3A-B, 202, 206 steps 302-306 and its description); and estimating the channel condition of the forward link using analyzed C/I values(see 2003/0161285, fig.3A-B, 204, 206 steps 306-310 and its description).

Regarding claims 28, and 31 Tiedemann, Jr. discloses a method and apparatus for channel quality feedback in a wireless communication, the method comprising the steps of: determining whether a current time slot of a subcarrier is a reference C/I transmission time slot (see 2003/0161285, fig.3A-B, 204, 206, steps 306-310 and its description); receiving feedback information using a reference C/I value of the subcarrier, if the current time slot of the subcarrier is the reference C/I transmission time slot (see 2003/0161285, fig.3A-B, 202, 204, 302 and its description); and estimating the channel condition of the forward link using analyzed C/I values (see 2003/0161285, fig.3A-B, 206, 308-310 and its description).

Regarding claims 32-33, Tiedemann, Jr. discloses a method and apparatus for channel quality feedback in a wireless communication, the method comprising: a forward link channel estimator for estimating carrier-to-interference ratio (C/I) values of the subcarriers using a received signal (see 2003/0161285, fig.3A-B, 202, 302 and its description); a feedback information generator for and generating the feedback

Art Unit: 2617

information of a subcarrier to be transmitted (see 2003/0161285, fig.3A-B, 204-206, 306-310, and its description; and a feedback channel for transmitting the generated feedback information to the base station for estimating the channel condition of the forward link (see 2003/0161285, fig.3A-B, 208, 312 and its description).

Allowable Subject Matter

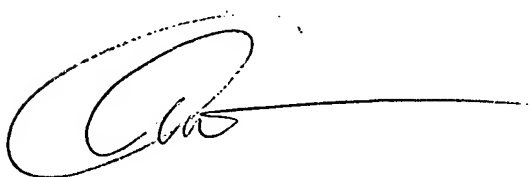
3. Claims 2-4, 9-13, 17-18, 22-24, 27, 29-30, 34-39, and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CongVan Tran whose telephone number is 571-272-7871. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, consisting of a large, stylized 'C' followed by a horizontal line extending to the right.

CongVan Tran
Primary Examiner
Art Unit 2617

March 29, 2007.